

Master in Artificial Intelligence



Algorithm Selection & Development XX





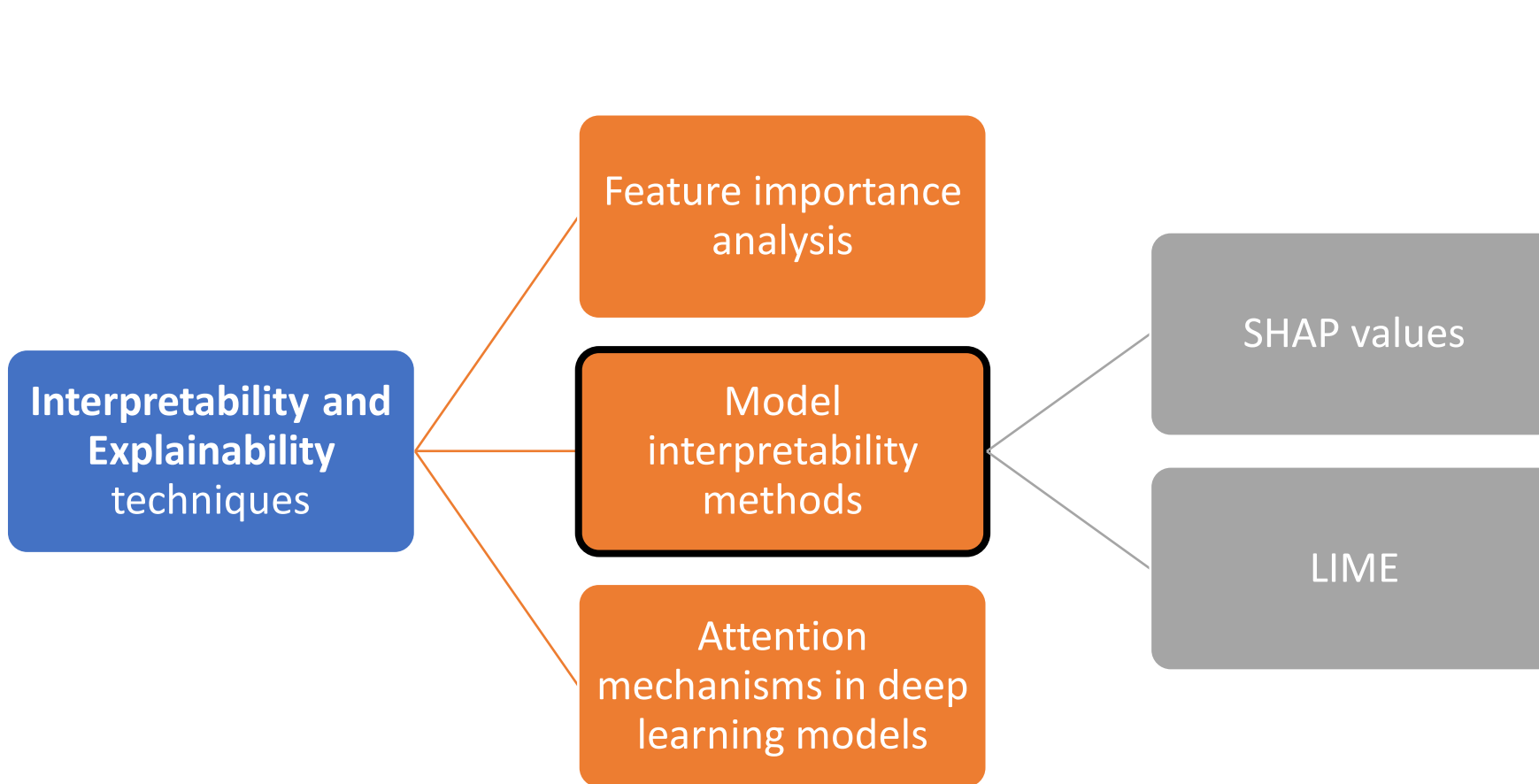
Purpose

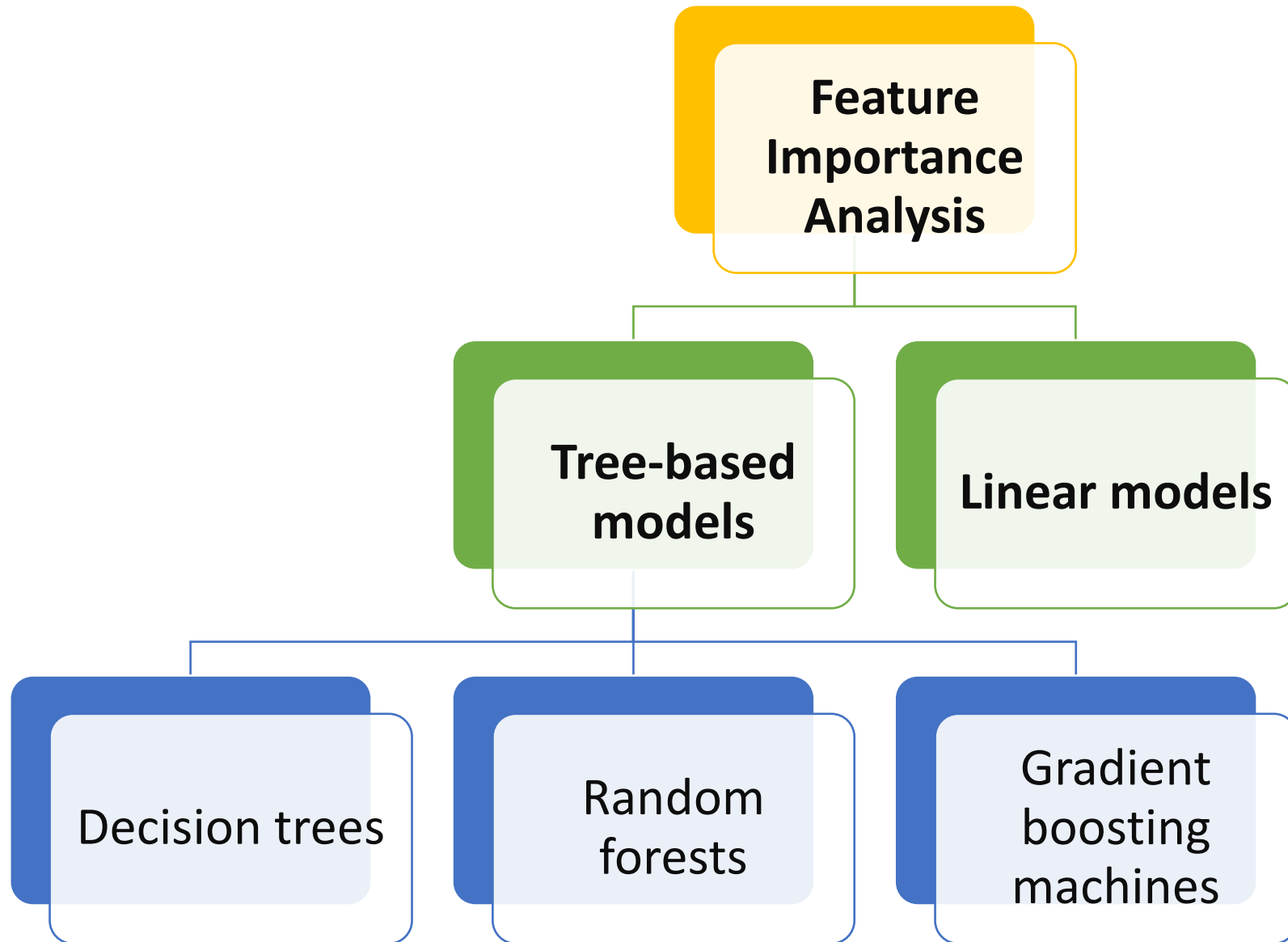
The purpose of the section is to help you learn how to research, select, and develop appropriate algorithms to become a Successful Artificial Intelligence (AI) Engineer

At the end of this lecture, you will learn the following

- **What are Model Interpretability Methods to consider the interpretability and explainability of the selected models**

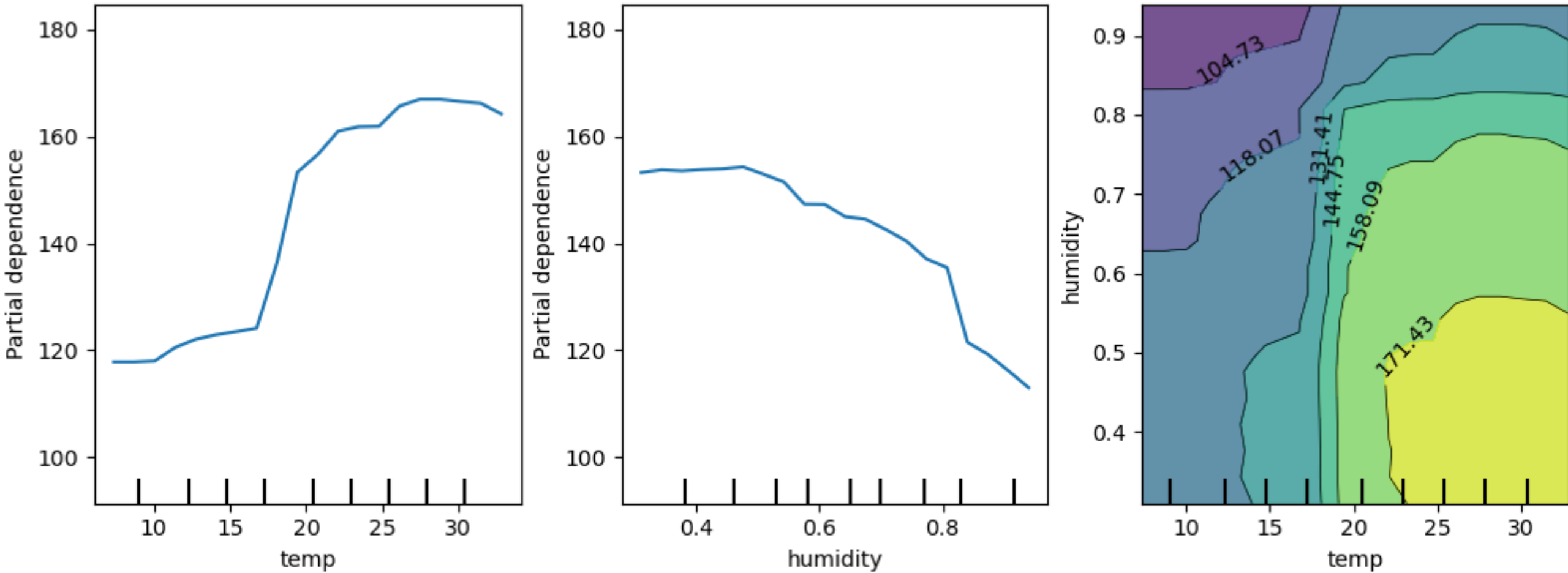




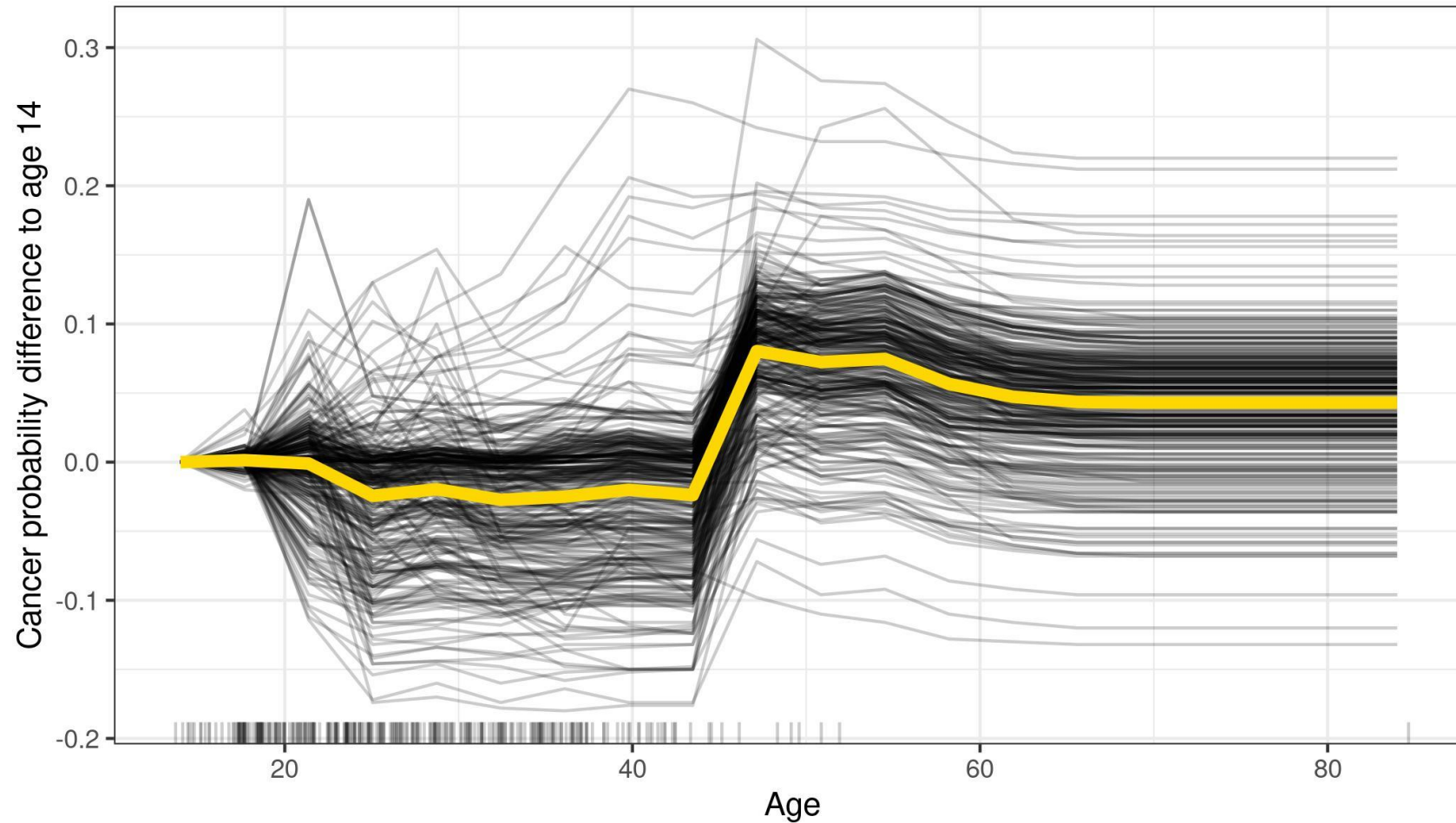


Model Interpretability Methods -Partial Dependence Plots (PDP)

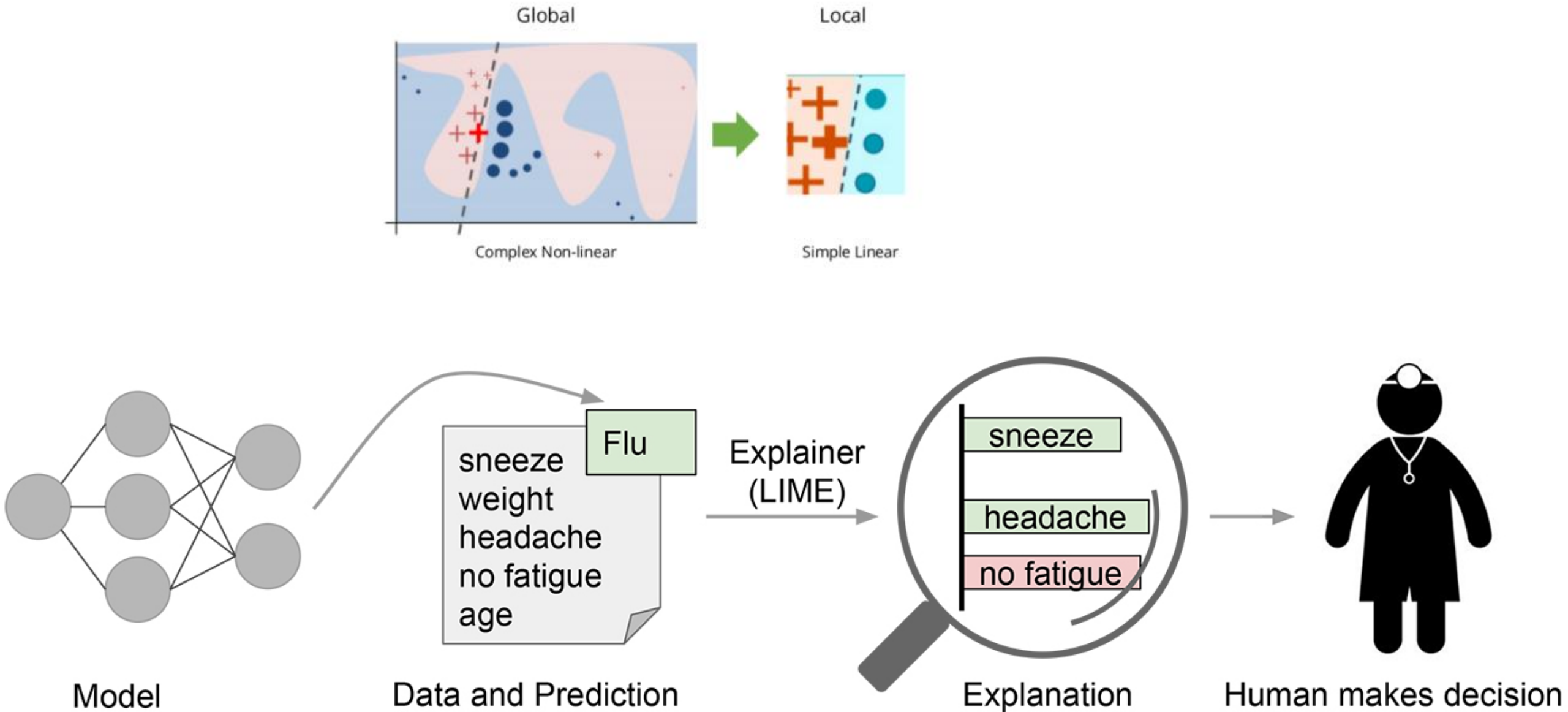
1-way vs 2-way of numerical PDP using gradient boosting



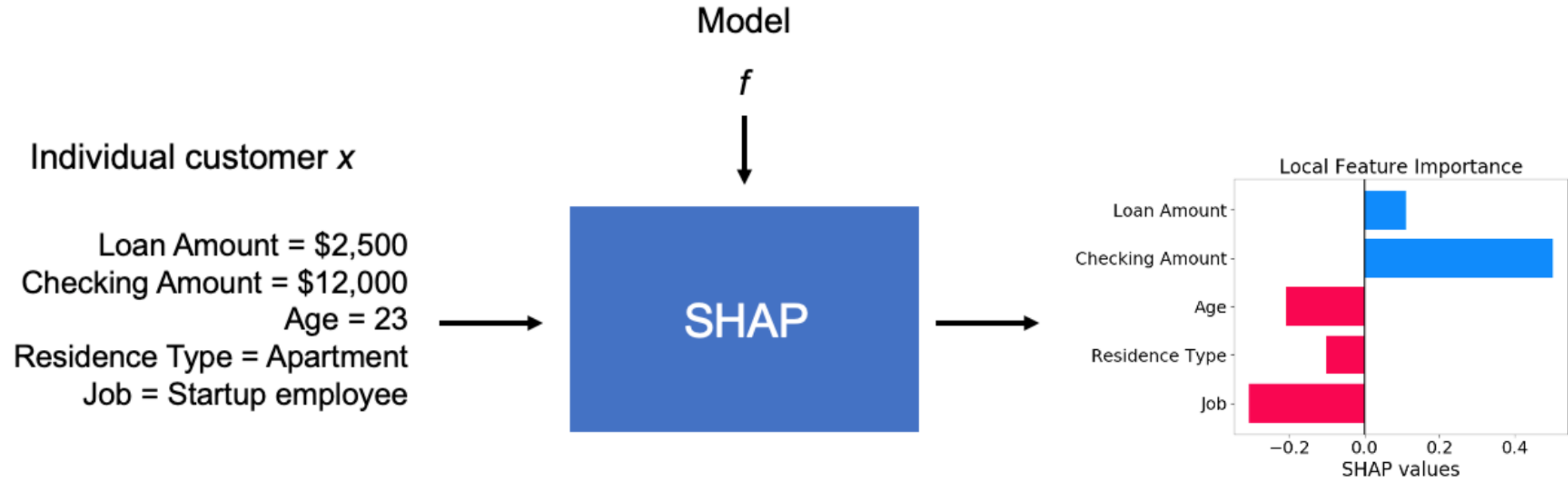
Model Interpretability Methods- Individual Conditional Expectation (ICE) Plots



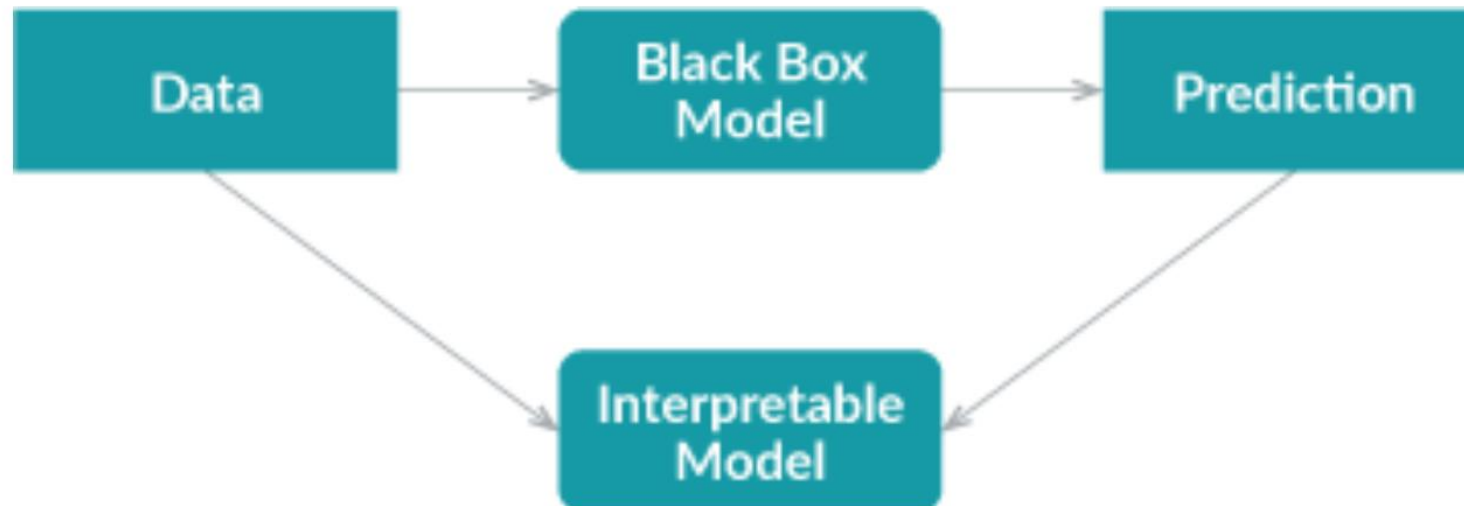
Model Interpretability Methods- Local Interpretable Model-agnostic Explanations (LIME)



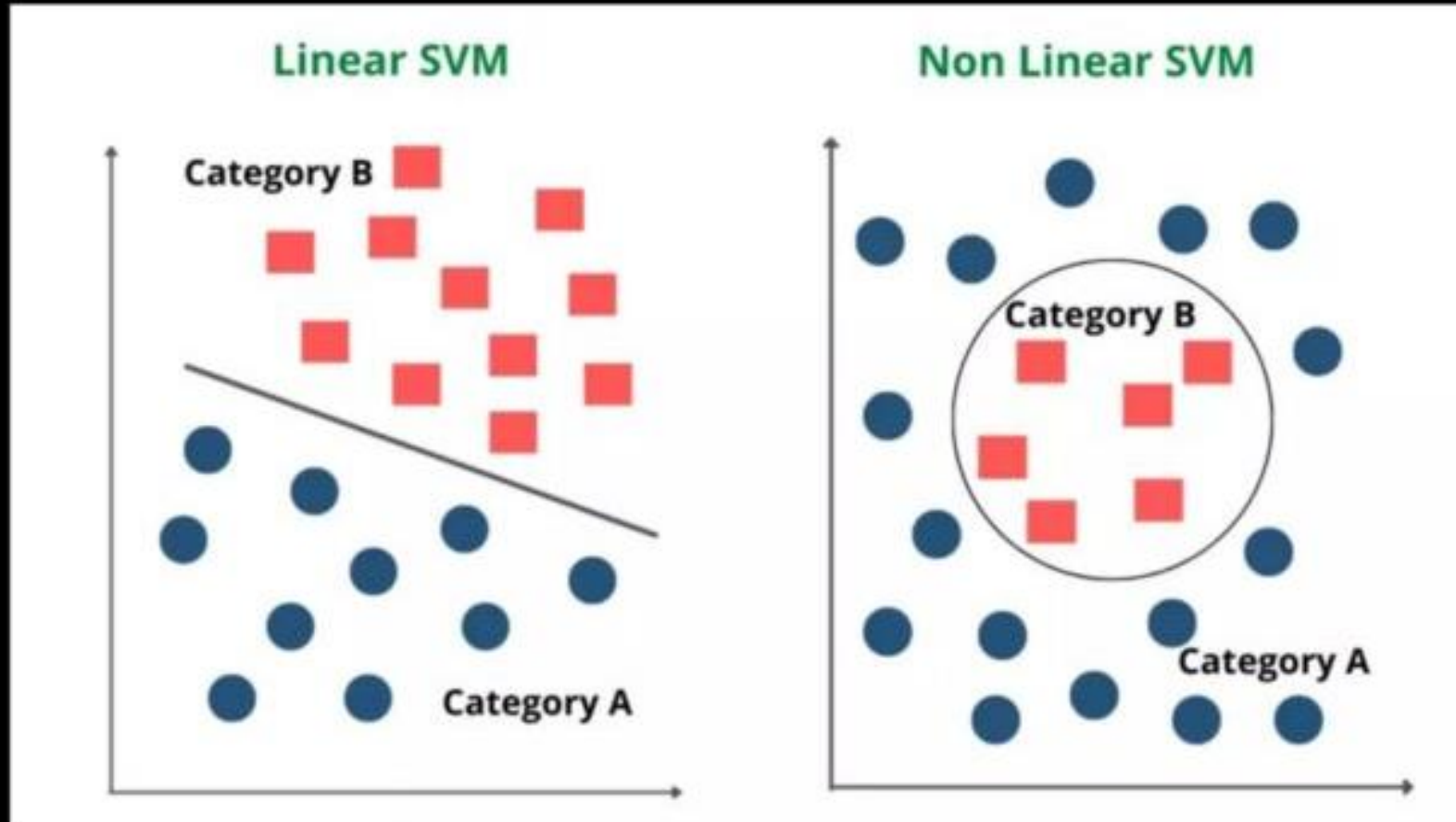
Model Interpretability Methods- SHAP (SHapley Additive exPlanations)



Model Interpretability Methods- Global Surrogate Models

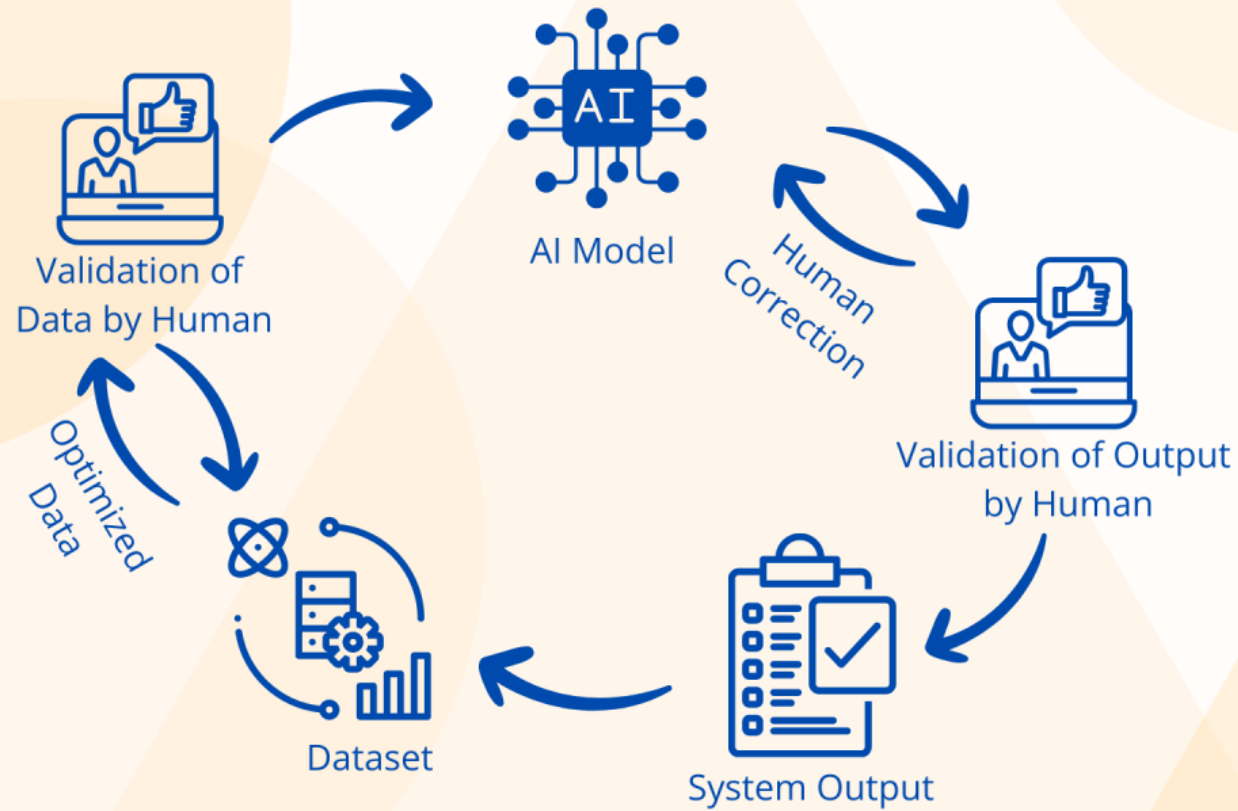


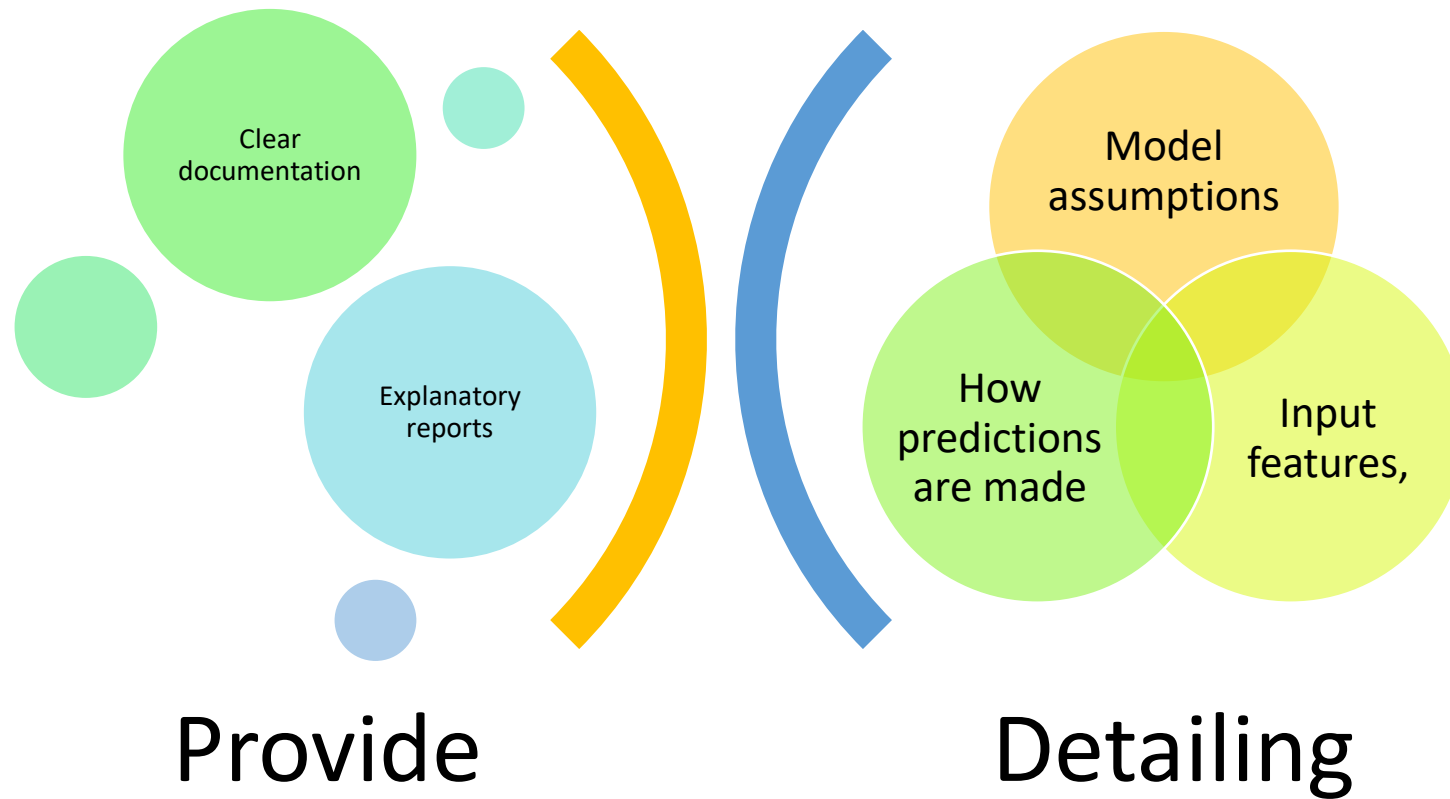
Model Interpretability Methods- Model-specific Interpretation Techniques



Model Interpretability Methods- Human-in-the-Loop Approaches

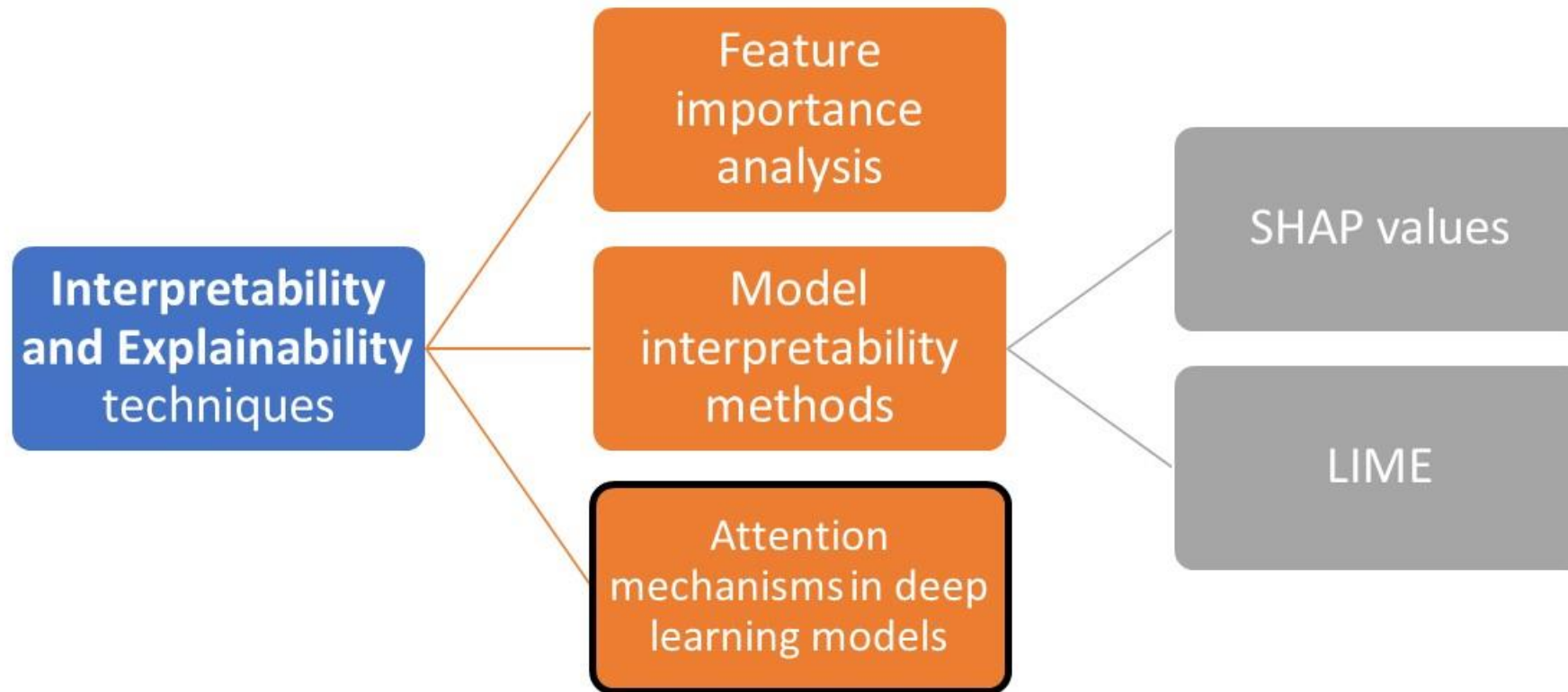
Responsible AI With Humans In The Loop





What is next?

What are attention mechanisms in deep learning models to consider the interpretability and explainability of the selected models



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*Thank
you*



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